The Mercury-Manganese star Phi Her

Zavala et al. 2007, ApJ, 655, 1046

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Phi Her was a single lined spectroscopic binary. The primary is an HgMn star with extreme enhancements depletions in many elements. Knowledge of the secondary spectral type is required to remove the effect o secondary from the primary star's spectrum. Optical Interferometry with the Navy Prototype Op Interferometer (NPOI) conclusively detected the secondary with a magnitude difference of 2.57 at 550 predicting a spectral type of A8V. This was confirmed spectroscopically at the Dominion Astrophy Observatory.

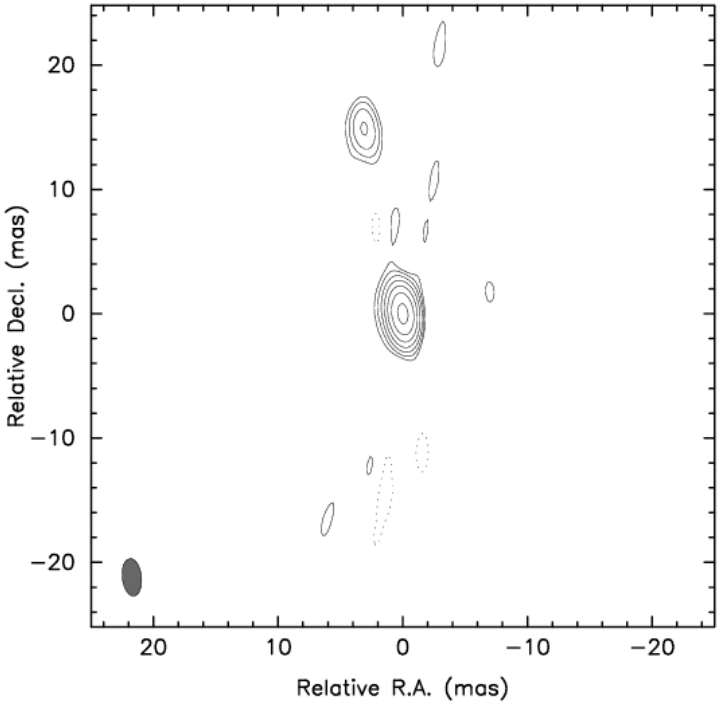
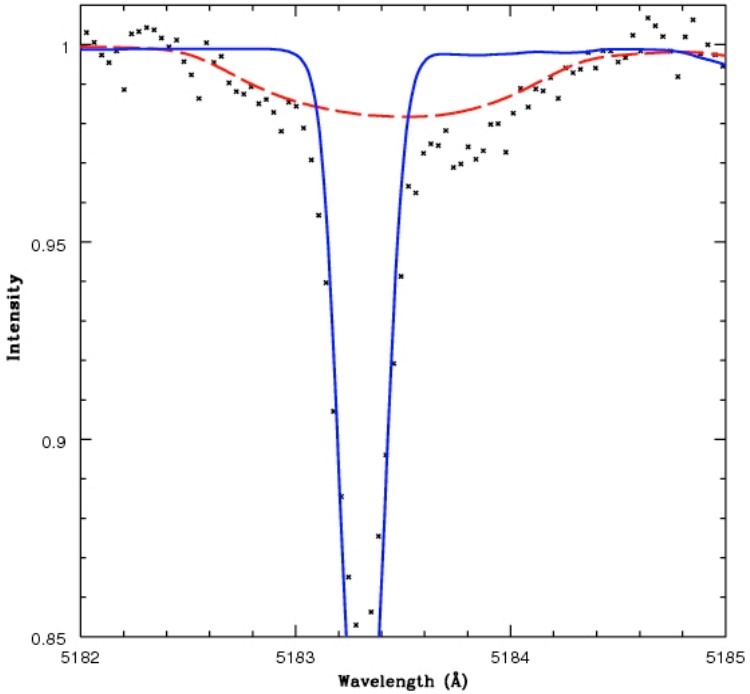


Image of Phi Her made from three 30 second scans with the NPOI on 2005 May 24 which showcases the NPOI's snap-shot imaging capability.



Spectrum of Phi Her (DAO 1.22M) showing the primary (blue) and secondary (red) contributio The precise fluxratio provided by the NPOI wa essential in this analysis.